Attorney Docket No. LUKP:116US U.S. Patent Application No. 10/711,227

Reply to Office Action of April 10, 1006

Date: July 05, 2006

Amendments to the Specification

Please replace paragraph [0003] with the following replacement paragraph.

[0003] Twin-clutch transmissions, especially parallel shift transmissions, are known from automotive technology. A parallel shift transmission (PSG) (PST) preferably has two transmission input shafts, each of which is coupled to the engine shaft via a friction clutch.

Please replace paragraph [0004] with the following replacement paragraph.

[0004] In the parallel shift transmission (PSG)-(PST) having, for example, self-locking, electromotive actuators, it may occur that the transmission controller fails based on an error because of, for example, the failure of a lock or the like during a crossover shift, and both clutches transmit a torque to the transmission input shafts. If this also occurs in specific driving situations, e.g., on a slippery roadway, and the driver, moreover, backs off on the gas pedal because he notices the failure, the wheels can, for example, start to slip and a breakoff in the road-holding can occur.

Please replace paragraph [0006] with the following replacement paragraph.

[0006] This objective can be achieved according to the invention in particular by a method for carrying out gear shifting in a twin-clutch transmission in which a downshifting is carried out as a function of the type of shifting and/or of at least one predetermined vehicle parameter. A vehicle performance such as in a manual shift transmission or in an automated shift transmission (ASG) (AST) may be achieved by a suitable parameterization of the shifting operations in a parallel shift transmission.

Please replace paragraph [0007] with the following replacement paragraph.

[0007] Within the context of a further development of the invention, it may be provided that a pulling downshift is carried out with a pulling force interruption, if an increased wheel-sleep-wheel slip probability is present as a vehicle parameter or if the pulling downshift is carried out in the parallel shift transmission in the cold-weather program. The recognition of the particular vehicle parameter may be accomplished using the engine, and/or transmission control device or the like. In this way, it is possible to avoid dangerous vehicle situations, especially in

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pulling downshifts. It is also possible that other vehicle parameters are used to carry out a pulling

force interruption during the pulling downshift.

Please replace paragraph [0013] with the following replacement paragraph.

[0013] Furthermore, a twin-clutch transmission is proposed with a device for carrying out

gear shifting as a function of the type of shifting and/or at least one predetermined vehicle

parameter. The twin-clutch transmission according to the invention may preferably be used to

carry out the proposed method. Preferably, a transmission control device or the like may be

provided for the detection of at least one vehicle parameter.

Please replace paragraph [0019] with the following replacement paragraph.

[0019] In a bottom diagram, the pulling force at the output is illustrated over time with a

dotted and dashed line. From this curve is evident that after the shift command a pulling force

interruption is carried out after this torque reduction is concluded until the torque buildup occurs

on the new gear. The shown pulling force curve during the pulling downshift of the parallel shift

transmission corresponds to the curve in an automated shift transmission (ASG) (AST).

Please replace paragraph [0026] with the following replacement paragraph.

[0026] In a top diagram, the curve of the engine torque is illustrated over time with a

dotted and dashed line, the curve of the torque on the old disengaging clutch with a dashed line

and the curve of the torque on the new engaging clutch with a dotted line. These curves are

produced if, for example, a cold-weather mode (cold-weather program) is activated that the

driver can request by a cold-weather button or cold-weather switch or which the transmission

controller can detect automatically by an accumulation of ABS and/or ESP (Electronic Stability

Program) control cycles. By using an engine intervention, it is possible for the clutch of the

lower gear in a pushing downshift during slip reduction to build up no overtorque or only

minimal overtorque after the gear ratio change. In an advantageous manner, a pushing torque

increase in the wheel/street contact is thereby prevented to the greatest possible extent.

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Please replace paragraph [0029] with the following replacement paragraph.

[0029] The patent claims submitted with the application are proposed formulations without prejudice to the achievement of further patent protection. The applicant reserves the right to submit claims for further combinations of features previously only disclosed in the description and/or the drawings.